***Documentary: Have you convinced me?***

**Portal: Evidence and Interpretation**

**Critical Challenge**

Critical Task

Assess arguments presented in documentary and decide how convincing they are.

Overview

In this challenge, students first uncover the difference between evidence, reason and conclusion and apply that understanding to a media product (in this case, a documentary film) that presents a particular interpretation of an issue. Then, they examine various arguments made within that media product to:

* assess the evidence that is presented in support of the argument
* identify “holes” in the arguments, or areas for further investigation
* assess the extent to which they have been convinced by the argument

**Objectives**

**Broad Understanding**

Students will understand that all attempts to use evidence to convince us of a particular interpretation can and should be assessed. Claims made by individuals, groups and institutions can be more or less convincing as a result of the both quality and quantity of evidence they refer to, and the persuasive techniques they use. In addition to assessing the extent to which they are convinced by a particular argument, they will also see the importance of identifying areas for further investigation in order to confirm or test claims made.

**Requisite tools**

*Background knowledge*

*Criteria for judgment*

* criteria for a warranted claim (e.g. is supported by adequate evidence, is supported by relevant evidence, evidence is drawn from reliable sources, strongly refutes counter-arguments or explains conflicting evidence)

*Critical thinking vocabulary*

* **Evidence:** The data used to make a judgment or draw a conclusion.
* **Conclusion:** A decision made by reasoning. A judgment, decision or belief reached after investigation. A firm answer based on several pieces of evidence.

*Thinking strategies*

*Habit of Mind:*

**Critically-minded**

***Suggested Activitives***

**Session One**

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| --- | --- |
| **In this section, students will:** | **Instructions to the teacher** |
| *Understand the purpose of this challenge* | Introduce the critical challenge to students: *Many claims are made about the environment by various groups, institutions and individuals. Our constant challenge is to decide whether or not the claims they make convince us of their position. In this challenge, you will be examining the claims made in a particular media product and deciding how convincing they are.*  **Critical Thinking Vocabulary** |
| *Distinguish between evidence, fact and conclusion* | Suggest that it important to be able to distinguish between ***evidence*** and **conclusions**. You might consider asking students for other words that are similar to evidence (fact, observation) and conclusion (theory, hypothesis, argument). Explain that a fact or observation becomes evidence when it is used to support an argument or conclusion.  Invite students to work with these definitions by sorting the statements found on BLM #1: Fact, Evidence or Conclusion.  Discuss how facts become evidence when used to support a conclusion and how some conclusions could be mistaken for facts.  ***Opportunity for Differentiation:*** *You might consider extending this activity and have students use different coloured highlighters when reading an article to identify statements of evidence vs. conclusions made by the author.*  **Habit of Mind** |
| *Build criteria for a warranted conclusion*  **Criteria** | Point out that all three can be assessed and challenged. Indicate that is important for us to be **critically-minded**, to be willing to evaluate information when it is important to do so. Clarify for students that being critically minded does not mean criticizing everything and everyone. Rather, it means that we decide whether or not to accept someone else’s claims and conclusions after assessing their merit according to criteria.    Invite students to consider what might happen if we are not critically-minded.  Provide students with BLM #2: Questioning Conclusions.  ***Opportunity for Differentiation:*** *You might consider selecting different examples of conclusions for some students. For example it may be useful to begin with more familiar examples related to your classroom, school or community to support some students’ understanding of the concept.*  Invite them to work with a partner to generate questions that might be sparked in their minds when they hear each conclusion. Then, ask them to consider what evidence they would expect to see offered in support of that conclusion. Invite them to share their answers with the class. During the class discussion, draw out the following **criteria** for a warranted conclusion:   1. Is the evidence accurate, relevant and specific? 2. Does the evidence come from a reliable/dependable source? 3. Is enough evidence provided to support the conclusion that is offered? 4. Is there any contradictory evidence that undermines the conclusion offered?   Consider posting this criteria on the wall for future reference. |
| *Practice assessing evidence (unpacking criteria #1)*  **During-reading strategy** | Invite students to try their hand at applying the criteria they have developed to assess whether a conclusion is warranted. Provide students with the background information sheet on.... (not yet developed) or a similar article on a relevant topic in your current unit.  Suggest that before they read the article they use the thinking strategy they have practiced above and anticipate the evidence they expect the authors would offer to support their claim. Invite them to complete the first column of BLM #3: Assessing the evidence.  **Pre-reading strategy**  While they are reading, invite students to complete the middle column of Assessing the evidence, recording the actual evidence provided in support of the conclusion(s) in the article.  After reading, have them complete the final column of the organizer by placing an x on the continuua provided to indicate whether they think the evidence provided is accurate, relevant and specific. If they are unsure about any of the categories, invite them to record their questions in the final column. |
| *Continue their assessment of the conclusions made* | Invite students to broaden their examination of the claims made in the article by assessing it according to the remaining criteria above – i.e:  2. Does the evidence come from a reliable/dependable source?  3. Is enough evidence provided to support the conclusion that is offered?  4. Is there any contradictory evidence that undermines the conclusion offered?  Provide students with BLM #4: Assessing Reports and Articles. Invite them to work with a partner to continue their assessment of the article provided using their close examination of the evidence in the previous section as the their starting point.  Invite students to share their final evaluations of the article with the class and explain their evaluations. Discuss why there may be differences of opinion with some students finding the conclusions very convincing while others find them less convincing (e.g. Some might have more or less background knowledge. Some might assign more importance to certain criteria than others.) |
| *Determine areas that require further investigation* | Suggest that after we have examined the evidence carefully, we may still have unanswered questions, doubts or we may still be unsure whether we should believe the claim or not. This is an opportunity to for further inquiry and the questions we have identified will help focus our inquiry.  If students will be pursuing this topic further, consider having them share the questions they generated with the class and use these questions to organize further inquiry into the topic with the end goal of deciding whether they conclusions made are warranted and whether or not we are convinced by the author’s arguments. |
| *Transition to independent practice* | Invite students to summarize in their own minds, the steps they would use next time when trying to figure out whether a particular author’s conclusion is convincing.  Ask them to share their ideas with a partner.  Considering capturing their ideas as a series of steps and posting these steps on the wall for future reference. For example, a summary of their thinking strategies might include:  - Before reading, brainstorm what evidence you would expect to see to support the claim and what data might contradict the claim  - While reading, code the text to identify statements of evidence vs. conclusions  - Assess the evidence to decide whether it is accurate, relevant and specific  - Assess the article or report as a whole according to the criteria outlined as a class  - Determine whether or not you have been convinced or whether you require further investigation before you make up your mind  Inform students that they will be practicing what they have learned about assessing evidence and conclusions using a documentary film about global warming. |

**Session two**

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| **In this section, students will:** | **Instructions to the teacher** |
| *Be introduced to the critical challenge* | Introduce the critical challenge to students: *Select the most compelling statement from a documentary film about global warming to be used as the tag line for the movie. Because the film’s creators want to make sure their film is taken seriously, they don’t just want a sensational or eye-catching tag-line. They want you to select the most compelling statement from the film. That is, a claim or conclusion from the film that best meets all our criteria for a warranted conclusion.* |
| *Apply*  *learning: Assessing evidence and conclusions* | Provide students with a synopsis of the documentary film (either from the film’s website or from the back of the DVD). You may also wish to provide students with a series of claims made in the film before hand to focus their viewing (For an example, see BLM#5: Claims and Conclusions in *The 11th Hour*.)  Invite students to refer to the steps they created in the previous session that would assist them in assessing evidence and conclusions. Suggest that they follow these steps and encourage them to use BLM #3 and #4 to guide their work as they view clips from the chosen documentary.  **Assessment for learning:** Assess students notes Blackline Master #3 and #4 before they proceed to the next step  **Opportunity for differentiation:** You may wish to assign different conclusions for different students to focus on during viewing. In this way, you can select a content focus that is appropriate to the learning strengths and needs of each child. |
| *Consolidate understanding by completing the critical challenge* | Invite students to compare their findings about the extent to which various claims made in the documentary were justified using BLM#6: The Most Compelling Statement. Once they have reached a final conclusion, ask them to share their proposal for a tagline using the most compelling statement of the film and justify their choice. |
| *Nurturing self-regulated thinking* | Consider gradually releasing responsibility to students for selecting the thinking strategies that would be most helpful when they assess evidence and conclusions as the course progresses.  Initially, you might require or encourage students to use various thinking strategies they have been introduced to here.  As time progresses and students become more adept at using these thinking strategies, consider moving them toward self-regulated thinking by encouraging them to select which thinking strategies might be most useful when faced with similar challenges. |

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Blackline Master #1

**Fact, Evidence or Conclusions**

Cut out each of the statement cards and sort them into three categories: simple facts, statements of evidence and conclusions.

|  |  |
| --- | --- |
| The name of this town is Port Perry. | It is windy outside. |
| The temperature is dropping rapidly | It looks like a severe storm is approaching. |
| Plastic does not break down quickly | Port Perry is situated on a lake. |
| Plastic bags should be banned. | Port Perry would be good place to set up a boat repair shop. |
| In some provinces, people have to pay for plastic bags at grocery stores. | The population of Port Perry is increasing. |

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Blackline Master #2

**Questioning Conclusions**

|  |  |  |
| --- | --- | --- |
| **Conclusion** | **Questions I have about this conclusion** | **Evidence I would expect to see to support this conclusion** |
| Increased immigration is essential for the health of the Canadian economy. |  |  |
| Wind turbines used to generate wind energy are hazardous to human health when they are placed too close to human habitat. |  |  |
| Canada is one of the few countries that will benefit more than it suffers from the effects of global warming. |  |  |

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Blackline Master #3

**Assessing the Evidence**

For each of the following observations, decide whether the inference is plausible or not. Explain your reasoning for your decision.

|  |  |  |  |
| --- | --- | --- | --- |
| Conclusion: | | | |
| Evidence I might expect to see: | Actual evidence provided | Assessing the evidence | Questions I still have: |
|  |  | inaccurate accurate  irrelevant relevant  too general too specific |  |
|  |  | inaccurate accurate  irrelevant relevant  too general too specific |  |
|  |  | inaccurate accurate  irrelevant relevant  too general too specific |  |
|  |  | inaccurate accurate  irrelevant relevant  too general too specific |  |
| The evidence used to support the conclusion is:   * highly adequate * somewhat adequate * highly inadequate   Explaining my evaluation: | | | |

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Blackline Master #4

**Assessing Reports and Articles**

|  |  |  |
| --- | --- | --- |
|  | Strengths regarding justifiability | Questions and concerns about justifiability |
| *Accurate, specific and relevant facts.*  (Consider using your work on BLM#3: Assessing the Evidence) |  |  |
| *Dependable sources.* Do the sources of information seem reliable? Is there reason to suspect their expertise or credibility? |  |  |
| *Adequate evidence.* Is there enough evidence to support the conclusions offered? |  |  |
| *Conflicting evidence.* Is there evidence to support different conclusions than the ones presented? Do the authors address potential arguments against their position convincingly? |  |  |

**My Evaluation:**

**The claims made by this document are:**

Very strongly justified Partially justified Questionable Very weakly justified

**Explanation:**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Blackline Master #5

**Claims and Conclusions in *The 11th Hour***

One can see from space how the human race has changed the Earth. Nearly all of the available land has been cleared of forest and is now used for agriculture or urban development. The polar icecaps are shrinking and the desert areas are increasing. At night, the Earth is no longer dark, but large areas are lit up. All of this is evidence that human exploitation of the planet is reaching a critical limit. But human demands and expectations are ever-increasing. We cannot continue to pollute the atmosphere, poison the ocean and exhaust the land. There isn't any more available.

- Stephen Hawking

Our biosphere is sick.

- Thom Hartmann

Not only is it the 11th hour, it's 11:59 and 59 seconds.

- Thomas Linzey

Probably the greatest weapon of mass destruction is corporate economic globalization.

- Kenny Ausubel

Could it be that man-made global warming is the greatest hoax ever perpetrated on the American people?

- Sen. James Inhofe

Understand that things are thieves of time.

- Nathan Gardels

So we've got bad things happening on a lot of fronts. And Earth is hurting... and we are the culprit.

- Ray Anderson

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Blackline Master #6

**The Most Compelling Statement**

In order to choose the most compelling statement from the film that will be used as a tagline for the documentary, compare your findings about different claims made in the film using the chart below.

|  |  |  |
| --- | --- | --- |
| **Claim made in the film** | **Rating on each criterion** | **Overall Ranking** |
|  | * Accurate, relevant, specific   facts?   * Dependable sources? * Adequate evidence? * Addressed conflicting   evidence? |  |
|  | * Accurate, relevant, specific   facts?   * Dependable sources? * Adequate evidence? * Addressed conflicting   evidence? |  |
|  | * Accurate, relevant, specific   facts?   * Dependable sources? * Adequate evidence? * Addressed conflicting   evidence? |  |
|  | * Accurate, relevant, specific   facts?   * Dependable sources? * Adequate evidence? * Addressed conflicting   evidence? |  |

The most compelling claim made in the film is:

Explanation: